

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

DENNIS BALL-BEY,)	
)	
Plaintiff,)	
)	
v.)	Case No. 4:18-CV-1364-SPM
)	
KYLE CHANDLER, et al.,)	
)	
Defendants.)	

MEMORANDUM AND ORDER

This matter is before the Court on two motions to exclude expert testimony filed by Defendants: (1) Defendants’ Motion to Exclude the Testimony of William M. Harmening (Doc. 222), and (2) Defendants’ Motion to Exclude the Testimony of Michael A. Knox (Doc. 224). The motions have been fully briefed.

I. FACTUAL BACKGROUND¹

This case arises out of the shooting death of Mansur Ball-Bey on August 19, 2015. On that date, Officers Kyle Chandler and Ronald Vaughn and other officers of the St. Louis Metropolitan Police Department, assisted by an agent from the Bureau of Alcohol, Tobacco, and Firearms, were in the process of executing a search warrant on a residence located at 1241 Walton Avenue. Chandler and Vaughn were assigned to cover the rear of the residence, and they (along with the ATF agent) went into the rear yard of one house north of that address. Two young men—Mansur

¹ These facts are generally taken from Defendants’ Statement of Uncontroverted Material Facts, submitted in support of their summary judgment motion (Doc. 231) and from Plaintiff’s Response to Defendants’ Statement of Undisputed Material Facts and Plaintiffs’ Statement of Additional Undisputed Material Facts (Doc. 280-2). Significant areas of dispute that are relevant to the instant motions are noted.

Ball-Bey and a shorter juvenile—ran out of the back of the residence at 1241 Walton Ave and began running south in the alley. The juvenile stopped running and hid behind an abandoned car. Ball-Bey continued running. While running down the alley, Ball-Bey was carrying a handgun with an extended ammunition clip. An off-duty police officer (“the Secret Witness”) happened to witness the events in question, saw Ball-Bey carrying a gun as he ran down the alley, and yelled, “gun, gun.” The parties dispute what occurred next.

Defendants assert that after running south down the alley, and still carrying the gun, Ball-Bey turned east and ran from the alley into the rear yard of 1233 Walton Avenue, with Chandler following him and Vaughn following behind Chandler. Defendants assert that as the officers were chasing Ball-Bey, Vaughn moved past Chandler, to Chandler’s right, into the rear yard of 1233 Walton Avenue. They claim that Ball-Bey raised the gun in his right hand and began to turn toward Vaughn. Both officers began firing at Ball-Bey, with Chandler firing one shot and Vaughn firing three shots. Chandler’s shot hit Ball-Bey. Ball-Bey was approximately five to ten feet in front of Chandler when Chandler shot him. Defendants assert that Ball-Bey then released the gun, and it flew over Vaughn’s head or shoulder in the direction of the alley behind Vaughn, landing by a dumpster in the alley (where it was later found). Ball-Bey then ran down the gangway in the direction of the front of 1233 Walton Avenue and collapsed in the front yard of that address, where his body was found. Defendants argue that their version of events is supported by the accounts of the officers, by the account of the Secret Witness, and by the revised statement of the medical examiner indicating that Ball-Bey could have continued running after he was shot.

Plaintiff’s version of events is as follows. Plaintiff asserts that as Ball-Bey was running south through the alley, he discarded the gun near the dumpster in the alley (where it was later found). Plaintiff claims that Ball-Bey—at that point unarmed—turned east toward the backyard of

1233 Walton and ran into a gangway south of the building. Plaintiff asserts that the officers fired at Ball-Bey while he was in the gangway, with Chandler's single shot hitting Ball-Bey in the back. Ball-Bey's spine was transected, and he instantly fell at the corner of 1233 Walton, where he died. Plaintiff contends that this version of events is supported by the physical evidence (including the location where Ball-Bey's gun was found, the location where the shell casings from the officers' shots were found, and the location where Ball-Bey's body fell), by some of the initial statements made by the witnesses at the scene, and by the initial opinion offered by the medical examiner indicating that Ball-Bey would have fallen immediately upon being shot.

Defendants now move to exclude the testimony of two experts Plaintiff offers to support his version of events: William M. Harmening, a use-of-force expert, and Michal A. Knox, a shooting reconstruction expert.

II. LEGAL STANDARDS

The admissibility of expert testimony is governed by Federal Rule of Evidence 702, which provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. This rule imposes a gatekeeping responsibility on the district court, requiring the court to ensure that expert testimony is both relevant and reliable. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 147 (1999) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579,

589 (1993)). In *Daubert*, the Supreme Court set forth several factors for courts to use in assessing the reliability of expert testimony: (1) whether the theory or technique can be and has been tested, (2) whether it has been subjected to peer review, (3) whether there is a high known or potential rate of error, and (4) whether the theory or technique enjoys general acceptance within a relevant scientific community. 509 U.S. at 593-94. However, the factors identified in *Daubert* “may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Kumho Tire Co.*, 526 U.S. at 150 (internal quotations omitted). “Expert testimony must rest on reliable principles and methods, but the ‘relevant reliability concerns may focus upon personal knowledge or experience’ rather than scientific foundations. *United States v. Holmes*, 751 F.3d 846, 850 (8th Cir. 2014) (quoting *Kumho Tire*, 526 U.S. at 50). A district court has “great latitude” in determining whether expert testimony satisfies the requirements of Rule 702. *Allen v. Brown Clinic, P.L.L.P.*, 531 F.3d 568, 573 (8th Cir. 2008).

The rule articulated in Rule 702 “clearly is one of admissibility rather than exclusion.” *Shuck v. CNH Am., LLC*, 498 F.3d 868, 874 (8th Cir. 2007) (internal quotation marks omitted). The Eighth Circuit has held that expert testimony should be liberally admitted and that “doubts regarding whether an expert’s testimony will be useful should generally be resolved in favor of admissibility.” *United States v. Finch*, 630 F.3d 1057, 1062 (8th Cir. 2011) (quoting *Sphere Drake Ins. PLC v. Trisko*, 226 F.3d 951, 954 (8th Cir. 2000)). See also *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 562 (8th Cir. 2014) (finding that the district court “violated [Rule 702’s] liberal admission standards by resolving doubts in favor of keeping the testimony out and relying upon its own assessment of the correctness of the expert opinions” instead of allowing “the adversarial process to work”); *Robinson v. GEICO Gen. Ins. Co.*, 447 F.3d 1096, 1100 (8th Cir.

2006) (requirement that expert testimony must assist the trier of fact “is satisfied where expert testimony advances the trier of fact’s understanding to any degree”) (internal quotation marks omitted). If an expert’s testimony “rests upon ‘good grounds, based on what is known,’ it should be tested by the adversary process with competing expert testimony and cross–examination, rather than excluded by the court at the outset.” *Johnson*, 754 F.3d at 562 (citing *Daubert*, 509 U.S. at 590). “Only if an expert’s opinion is so fundamentally unsupported that it can offer no assistance to the jury must such testimony be excluded.” *Finch*, 630 F.3d at 1062 (quoting *Arkwright Mut. Ins. Co. v. Gwinner Oil, Inc.*, 125 F.3d 1176, 1183 (8th Cir. 1997)).

The proponent of expert testimony bears the burden of proving its admissibility by a preponderance of the evidence. *Lauzon v. Senco Prod., Inc.*, 270 F.3d 681, 686 (8th Cir. 2001) (citing *Daubert*, 509 U.S. at 592).

III. DISCUSSION

A. Motion to Exclude Harmening’s Opinions

The Court first considers Defendants’ motion to exclude Harmening’s opinions. Plaintiff endorsed Harmening as “a use of force expert who will testify as to the policies and practices of the St. Louis Metropolitan Police Department and the City of St. Louis in regards to the use of force on subjects who run, or resist” and who “will opine on the use of force in this matter of Ball-Bey v. Chandler.” Plaintiff’s Supplemental Disclosures to December 15th 2021 Expert Disclosures (April 4, 2022), Doc. 222-2. Harmening is an adjunct professor of forensic psychology and criminology at Washington University who has more than 30 years of experience in law enforcement. He has an M.A. in psychology and teaches forensic psychology, criminology, crisis intervention, and correctional psychology.

Harmening's Report Summary is as follows:

REPORT SUMMARY: The purpose of this investigation was to determine whether Officers Chandler and Vaughn used excessive force in the death of Mansur Ball-Bey. The report was completed through a review and analysis of police reports, ballistic evidence reports, autopsy reports, and media accounts of the incident. It was concluded that both officers fired upon Ball-Bey at a time when he was not armed and running away from the officers, with Officer Chandler striking him once in the back. Ball-Bey collapsed and died at the scene. A number of inconsistencies were found in the statements of the two officers involved, as well as two other officers who witnessed parts of the incident. Inconsistencies and misrepresentations were also found in the summary report of the incident released by the Circuit Attorney's Office. It was included, based on the physical evidence, that the level of force administered by both officers was neither reasonable nor justified.

Harmening Report, Doc. 222-3. p. 1. In the body of his Report, Harmening discusses the witness testimony and physical evidence and offers commentary on various inconsistencies in the evidence. Based on his analysis of the evidence, he states that the version of events offered by the officers is "simply not possible." Harmening Report, Doc. 222-3, at 7. Specifically, he finds that the officers' testimony regarding the shooting, combined with the locations of the shell casings and research showing that casings eject to the right and backwards, indicates that Ball-Bey must have been at least 52 feet east of the alley (and more likely 60-80 feet east of the alley) when he was shot. Because it is undisputed that the gun was found in the alley, Harmening opines, Ball-Bey could not have been holding the gun when he was shot, unless he somehow threw the gun 52-80 feet back over his shoulder, over the heads of the officers, while running and being mortally wounded. Harmening offers his own diagram of the likely locations of Ball-Bey and the officers at the time of the shooting.

Harmening then cites two United States Supreme Court cases addressing the factors to be considered in assessing whether an officer's use of deadly force was reasonable. Discussing those factors in light of the evidence in this case, he notes that that Ball-Bey had been accused of no

crime, that Ball-Bey was not under arrest, and that after Ball-Bey dropped the gun, he posed no immediate threat to the officers.

Harmening also discusses the investigation of the incident conducted by the Force Investigation Unit and the Report prepared by the Circuit Attorney's Office, and he identifies several problems and issues with both investigations. In particular, he notes that the Circuit Attorney's Office produced diagrams that contain inaccurate and vague representations of where the shell casings were found.

At the end of his Report, Harmening states:

FINAL OPINION: It is the opinion of this expert that the use of deadly force by Officers Chandler and Vaughn, leading to the death of Mansur Ball-Bey from a single gunshot by the former, was neither reasonable nor justified, and clearly, given the circumstances under which the shooting occurred, amounted to a case of excessive force.

Harmening Report, Doc. 222-3 at p. 14. In his deposition, when asked for a list of his opinions, Harmening stated, "I think I—in this report, I only offer one final opinion that the use of force by both Chandler and Vaughn was excessive under the circumstances and not justified." Harmening Dep., Doc. 222-4, 24:6-13.

Defendants appear to make three arguments in support of excluding Harmening's opinions: (1) that Harmening's opinions regarding the reasonableness of the officers' use of force must be excluded because they are legal conclusions; (2) that Harmening's statements regarding the credibility of various eyewitnesses' statements are inadmissible; and (3) that Harmening's opinions regarding ballistics evidence and scene reconstruction must be excluded because they are opinions he is not qualified to make. The Court will consider each argument in turn.

1. Harmening's opinions regarding the reasonableness of the officers' use of force

Defendants first argue that Harmening's opinions that the officers' use of force was "not reasonable," "not justified," or constituted "excessive force" must be excluded because they constitute impermissible legal conclusions. The Court agrees.

Expert opinion testimony is admissible only if it "w help the trier of fact to understand the evidence or to determine a fact in issue." Fed. R. Evid. 702. The Eighth Circuit, and district courts within the Eighth Circuit, have repeatedly found that an expert's opinion about whether an officer's conduct was "reasonable" in light of constitutional standards is a legal conclusion that does not assist the jury in determining the facts and is thus inadmissible. In *Peterson v. City of Plymouth*, 60 F.3d 469 (8th Cir. 1995), the district court allowed an expert to testify on behalf of the defendant officers to show that they had acted reasonably in their encounter with the plaintiff, with the expert setting forth his opinion regarding why each action the officers took was consistent with "nationally accepted standards" and offering the overall opinion that the officers' conduct comported with "standards under the Fourth Amendment." *Id.* at 475. The Eighth Circuit held that the trial court had abused its discretion in admitting the testimony. *Id.* It noted that the expert's testimony, which "involved only his views concerning the reasonableness of the officers' conduct in light of 'Fourth Amendment Standards,'" was not a fact-based opinion that would assist the jury in determining what facts were known to the officers at the time of arrest, but was rather a "statement of legal conclusion." *Id.* The court stated, "The legal conclusions were for the court to make." *Id.* See also *Schmidt v. City of Bella Villa*, 557 F.3d 564, 570 (8th Cir. 2009) (relying on *Peterson* and affirming the district court's decision to exclude, as impermissible legal conclusions, expert opinions regarding the reasonableness of police procedures).

District courts applying *Peterson* and *Schmidt* have repeatedly excluded expert opinions very similar to the opinions offered here. *See Marks v. Bauer*, No. CV 20-1913 ADM/JFD, 2023 WL 1478015, at *13 (D. Minn. Feb. 2, 2023) (“An expert’s opinion on the reasonableness of police conduct in light of Fourth Amendment standards is an impermissible legal conclusion and is not admissible. The Court finds that Gard’s conclusions about the reasonableness of Officer Bauer’s force constitute bare legal conclusions. As a result, they must be excluded from Gard’s report and from his testimony at trial.”) (citations omitted); *Lombardo v. Saint Louis City*, No. 4:16-CV-01637-NCC, 2019 WL 414773, at *8 (E.D. Mo. Feb. 1, 2019) (“[A]n expert’s opinion concerning the ‘reasonableness’ or ‘excessiveness’ of an officer’s conduct under the Fourth Amendment is an impermissible legal conclusion, not a fact-based opinion. Therefore, Mr. Leonesio is not permitted to testify that the Officers’ conduct was excessive, unnecessary, or reasonable.”); *Redd v. Abila-Reyes*, No. CIV. 12-465 MJD/JSM, 2013 WL 6036697, at *1 (D. Minn. Nov. 14, 2013) (“An expert’s opinion regarding whether a police officer’s behavior conforms to constitutional standards is inadmissible. . . . [The expert] may not testify whether [the officer’s] force was excessive or reasonable under the Fourth Amendment, whether he violated any law, or whether [the officer] had probable cause to arrest [the plaintiff].”). *Cf. Shannon v. Koehler*, No. C 08-4059-MWB, 2011 WL 10483363, at *30 (N.D. Iowa Sept. 16, 2011) (“[A]n expert’s opinion in an excessive force case concerning the ‘reasonableness’ or ‘excessiveness’ of an officer’s conduct under the Fourth Amendment would be an impermissible legal conclusion, not a fact-based opinion.”)

Here, as in the above cases, Harmening’s opinions regarding whether the force used was reasonable, justified, or excessive are simply legal conclusions and are thus inadmissible.

Plaintiff's arguments to the contrary are unpersuasive. Plaintiff argues that Harmening "does not address what the law is or how the law should apply, nor does he testify to the legal implications of conduct." Pl.'s Resp., Doc. 228, at 3. But that is precisely what Harmening does. After setting out his assessment of the facts of the case, Harmening lists the questions the Supreme Court directs courts to answer in determining whether the use of deadly force is reasonable, then explains how that law applies to the facts of this case. Plaintiff also argues that "Mr. Harmening is not merely addressing or making legal conclusions based on pure questions of law, rather, he is opining as to whether Defendants violated Defendants' own departmental standards and whether Defendants' actions were consistent with prevailing standards in the field of law enforcement." *Id.* at 4. However, Plaintiff does not cite, and the Court has not found, any part of the report or any deposition testimony in which Harmening addresses Defendants' departmental standards or prevailing standards in the field of law enforcement.

The Court is also unpersuaded by Plaintiff's suggestion that Rule 704(a) of the Federal Rules of Evidence permits admission of these opinions. It is true that Rule 704(a) of the Federal Rules provides that "an opinion is not objectionable just because it embraces an ultimate issue." However, the Advisory Committee notes state that other rules of evidence, including Rule 702, provide for exclusion of opinions that "merely tell the jury what result to reach" or opinions that are "phrased in terms of inadequately explored legal criteria." Fed. R. Evid. 704, Notes of Advisory Committee on Proposed Rule. As another court has noted, "Applying these concepts to § 1983 cases governed by the Fourth Amendment reasonableness standard, the Eighth Circuit Court of Appeals, despite Rule 704, has limited the ability of experts to offer opinions on the ultimate issue." *Shannon*, 2011 WL 10483363, at *29.

The Court also notes that all of the cases Plaintiff cites are from outside the Eighth Circuit. To the extent that any of these cases cannot be distinguished factually, the Court finds them not binding and unpersuasive. The Court is bound by the Eighth Circuit cases limiting the admissibility of expert testimony on the reasonableness of officer actions.

2. Harmening's opinions regarding witness credibility

Defendants also appear to object to Harmening's comments in his report regarding his opinion of the credibility of various eyewitness statements. Plaintiff offers no response. The Court agrees with Defendants that, to the extent Harmening opines on witness credibility, such opinions are inadmissible. *See Nichols v. Am. Nat. Ins. Co.*, 154 F.3d 875, 883 (8th Cir. 1998) ("Weighing evidence and determining credibility are tasks exclusive to the jury, and an expert should not offer an opinion about the truthfulness of witness testimony."); *Westcott v. Crinklaw*, 68 F.3d 1073, 1076 (8th Cir. 1995) (holding the district court erred in expert testimony directed to the reliability of a witness's statements, because this "was a credibility issue which should have been left in the exclusive province of the jury"); *Sloan v. Long*, No. 4:16 CV 86 (JMB), 2018 WL 1243664, at *3–*4 (E.D. Mo. Mar. 9, 2018) (excluding expert opinion that "improperly assesses the credibility of witnesses and invades the province of the jury").

3. Harmening's scene reconstruction and related opinions

Finally, Defendants argue that Harmening should not be permitted to testify about his conclusions regarding ballistics evidence or his attempts at scene reconstruction, because he is not qualified to offer such opinions. Defendants point out that in two other cases, district courts have found that Harmening was not qualified to offer opinions on similar topics. *See Est. of Gonzalez by & through Rodriguez v. Bd. of Cnty. Commissioners of Cnty. of Bernalillo, New Mexico* No. CV 18-125 KG/LF, 2019 WL 3415059, at *4 (D.N.M. July 29, 2019) (stating, "Even applying the

liberal definition of an expert, the Court does not see and Rodriguez does not argue any basis upon which to determine that Harmening is qualified to opine on blood evidence, shooting reconstruction, wound characteristics, or bullet trajectories. Harmening lacks training or experience in these areas and interpretation of the physical evidence is not “within the reasonable confines” of Harmening’s expertise: psychology and securities fraud.”); *Cole v. Perry*, No. 1:16-CV-3081-WTL-MJD, 2019 WL 4165304, at *10-*11 (S.D. Ind. Apr. 30, 2019) (finding that the plaintiff had not demonstrated that Harmening was an expert in ballistics, handguns, crime scene reconstruction, crime scene analysis, or crime scene diagrams; noting that “the majority of Mr. Harmening’s career in law enforcement and his academic credentials are not focused on the issues on which the Plaintiff plans to have him testify).

In his response, Plaintiff attempts to distinguish the above cases. With regard to *Cole*, Plaintiff “all four experts on both sides were disqualified from testifying within 30 days of trial” and “[t]he case settled one week later for \$2.1 million.” Pl.s’ Resp., Doc. 228, at 10. It is unclear to the Court how those facts undermines the persuasive value of *Cole*. With regard to *Gonzalez*, Plaintiff states that in that case, Harmening had already terminated his involvement in the case due to a failure to fulfill contractual obligations related to his retainer, and that Plaintiff’s counsel failed to defend Harmening’s credentials in responding to the motion to exclude. The Court agrees that if that is true, it somewhat undermines the persuasive value of *Gonzalez*, but only to the extent that Plaintiff here *can* show that Harmening has the requisite qualifications.

Plaintiff also offers several arguments as to why Harmening is qualified to offer the opinions at issue here. He emphasizes the number of cases in which Harmening has provided expert evidence and provides a list of 239 cases in which Harmening has testified in the areas of police practices, use of force, and forensic psychology. He also notes that the City of St. Louis has

contracted for his services on multiple occasions in cases involving police shootings. He then discusses Harmening's extensive experience in teaching and writing on issues related to psychology and police use of force. The Court finds that most of this information is of little relevance to the instant question, however, because it does not address the issue of whether Harmening is qualified to do a shooting scene reconstruction or to analyze physical evidence. Defendants do not appear to dispute, for purposes of this motion, that Harmening is qualified to provide some expert services related to police practices, use of force, and forensic psychology.

On the specific question of Harmening's qualifications to offer opinions on shooting reconstruction, Plaintiff offers the following. First, he states in his Response that Harmening worked with City of St. Louis on one case in which he "was asked to do a partial scene reconstruction to determine if the officers' accounts of the incident were possible," that the scene reconstruction "involved trajectory analysis of a number of shots taken by one of the officers at a moving vehicle," that based on his analysis, the Circuit Attorney's Office declined charges against the individual who survived the shooting. Pl.s' Resp., Doc. 228, at 9. Plaintiff does not submit any evidence in support of these statements in his brief.

Second, Plaintiff includes in his response a list of experiences and education that he claims support Harmening's qualifications. However, the items on the list contain very little detail from which the Court could determine how recent these experiences were or how extensive they were. For example, he states that he was "trained in investigative methods at the Springfield Illinois Police Academy and the Illinois State Police Academy," that the "training has included trajectory analysis, latent fingerprints, and crime scene photography," and that he "used these methods in multiple criminal investigations while a deputy sheriff in Menard County Illinois." *Id.* at 11. He also states that he was an instructor at a police training center and provided instruction on crime

scene processing and analysis while a uniformed deputy sheriff/chief deputy sheriff. *Id.* But Harmening's resume indicates that he last worked as a deputy sheriff in 1993, and that since then, his work in law enforcement has been principally in fraud, securities, and computer-related investigations—areas that seems unlikely to involve the use of shooting scene reconstruction techniques. *See* Harmening Report, Doc. 222-3, at ECF pp. 4-5. Moreover, there is no indication of how much time Harmening spent, either in training or in practice, on techniques relevant to shooting reconstruction. The Court is not persuaded that these vague statements, which largely relate to Harmening's activities from roughly thirty years ago, support Harmening's qualifications in this case.

Third, Plaintiff attaches to his Response an "Investigative Portfolio" that states that it is a sampling of investigative analyses Harmening has completed in the course of providing expert witness services. Investigative Portfolio, Doc. 228-2. It contains diagrams and brief explanations from eight cases in which Harmening performed some type of crime scene reconstruction in shooting cases. Plaintiff has not submitted any affidavit or other evidence from which the Court could determine when or how those analyses were created, what training or experience Harmening had that allowed him to create those analyses, whether Harmening created those analyses on his own or in collaboration with others, how those analyses were used in litigation or otherwise, or whether anyone aside from Harmening himself ever evaluated those analyses to determine whether they were accurate.

After consideration of all of the above, the Court finds that Plaintiff has failed to satisfy his burden of demonstrating, by a preponderance of evidence, that Harmening has the qualifications necessary to offer opinions on reconstruction of the crime scene. Although Harmening appears to have significant training, education, and experience in psychology and in the police use of force,

there is almost nothing in the record to indicate that he has had any significant training or education in the analysis of physical evidence (such as shell casing locations) or in crime scene reconstruction. His brief, general training and experience as a police officer decades ago is not sufficient to establish Harmening's qualifications. The analyses in the Investigative Portfolio suggest Harmening may have had the professional experience to render him qualified, but in the absence of additional information or context, the Court is unable to evaluate whether the work referenced in the Investigative Portfolio does or does not establish Harmening's qualifications as an expert in crime scene reconstruction. As in *Cole* and *Gonzalez*, Plaintiff here has failed to show that Harmening is qualified to offer opinions on crime scene reconstruction or analysis of physical evidence.

B. Motion to Exclude Knox's Opinions

The Court next considers Defendants' motion to exclude the opinions of Michael A. Knox. Plaintiff endorsed Knox as a "shooting reconstruction expert who will testify as to the physical evidence and layout that the final and fatal shot occurred at the mouth of the gangway based on the physical evidence." Plaintiff's Supplemental Disclosures to December 15th 2021 Expert Disclosures (April 4, 2022), Doc. 225-1. In his report, Knox offers the following opinions: (1) a total of four shots were fired by Chandler and Vaughn; (2) Ball-Bey was shot one time in the back by Chandler;² (3) Ball-Bey was likely unarmed when Chandler shot him; (4) Vaughn's testimony as to where he and Ball-Bey were located when Vaughn fired is not supported by the physical evidence; (5) Chandler's testimony as to where he and Ball-Bey were located when Chandler fired

² The first two opinions appear to address issues that are not in dispute.

is not supported by the physical evidence; and (6) Ball-Bey was located near the east end of the gangway, if not already in the front yard of 1233 Walton Avenue, when he was shot by Chandler. In his report and deposition testimony, he explains how he analyzed witness testimony, witness statements, medical reports, and physical evidence to reach those opinions.

Defendants argue that Knox's testimony should be excluded because his conclusions are mere speculation, lack any form of scientific support or methodology, and amount to nothing more than his own impermissible personal commentary on the credibility of witness testimony.

As a preliminary matter, the Court addresses Knox's qualifications. Knox holds a Ph.D. in Criminal Justice, an M.S. in forensic science, and a B.S. in mechanical engineering. He has been a forensic consultant since 2008, and he served as a detective/police officer for 16 years. He was a Certified Crime Reconstructionist with the IAI from 2011-2021, at which point the IAI discontinued its certification program. He has given numerous courses, lectures, and presentations on shooting incident reconstruction and crime scene reconstruction. He has extensive professional training in areas including crime reconstruction of shooting incidents, crime scene processing, bloodstain pattern analysis, and scene mapping using speed lasers. He has authored journal articles related to determining the location of a shooter based on bullet trajectory and on reconstruction of firearms-related incidents using ejected cartridge case patterns. He has testified as an expert, either in depositions or at trial, in hundreds of cases.

Based on the above, the Court finds that Knox is very well qualified, by both education and experience, to offer opinions regarding a reconstruction of the scene of the shooting in this case, based on the physical evidence and the testimony in the record.

The Court next turns to Defendants' arguments that Knox's opinions in this case do not satisfy Rule 702's relevance and/or reliability requirements. Defendants take issue with three

opinions offered by Knox: (1) that Ball-Bey was likely unarmed when Chandler shot him; (2) that Vaughn's testimony as to where he and Ball-Bey were located when Chandler fired is not supported by the physical evidence; and (3) that Ball-Bey was located near the east end of the gangway, if not already in the front yard of 1233 Walton Avenue, when he was shot by Chandler. The Court will address each in turn.

1. Opinion that Ball-Bey was likely unarmed when Chandler shot him

Defendants first argue that Knox's opinion that Ball-Bey was likely unarmed when he was shot is inadmissible because it is based on speculation about the scene, does not involve any scientific analysis, involves evaluation of the credibility of witnesses, lacks adequate explanation, is based on part on an erroneously transcribed witness statement, and involves convoluted reasoning.

After careful review of the record, and keeping in mind the Eighth Circuit's direction that doubts regarding expert testimony should be resolved in favor of admissibility, the Court finds the Court finds that Knox's opinions are sufficiently reliable to satisfy the standards of Rule 702. Defendants' concerns and criticisms, though valid, go to the weight, rather than the admissibility, of Knox's opinion evidence.

In Knox's report, Knox begins with a discussion of the scientific principles underlying crime scene reconstruction and a list of the pieces of evidence he reviewed in reaching his conclusion, including audio recordings, deposition transcripts, police lab reports, numerous photographs of the scene, and witness statements. Knox discusses the relevant testimonial and physical evidence at length in his report before articulating his conclusions. Taking his report and deposition together, Knox explained his opinion that Ball-Bey was likely unarmed when he was shot as follows. The officers' testimony was that during the chase, at the time of the shooting, Ball-

Bey and the officers were traveling east, away from the alley. The shell casings were all found at various locations east of the alley: one two and a half feet east of the alley (“number 1”), one approximately twenty-one feet east of the alley (“number 5”), one approximately 23 feet east of the alley (“number 6”), and one approximately 52 feet east of the alley (“number 7”). According to Knox, shell casings eject to the right and rear.³ This indicates that during the chase, all of the shots were fired “downstream” of the location of the gun, with the last shot being fired at least 52 feet east of the location of the gun. He opines that this means that the gun was likely deposited in the area where it came to rest before the shots were actually fired. Knox also opines that there is no reasonable possibility that Ball-Bey, upon being shot, threw the gun more than 52 feet behind him while being shot. He states that such a throw would have required him to have turned around and pitched a gun like a pitcher, which is contrary to the officers’ description of what happened. Knox also stated in his deposition that he did a calculation, based on a kinematic equation published in a peer-reviewed journal, to determine that the gun would have to be thrown at 40 miles per hour to reach its final resting position. He also notes that photographs of the gun show very few signs of interaction with the concrete, which is more consistent with a gun being dropped than with a gun being thrown. Knox acknowledges that the physical evidence *alone* does not establish that the number 7 casing came from Chandler’s gun. However, he notes that if the number 7 casing did not come from Chandler’s gun, then Vaughan was shooting at Ball-Bey after Ball-Bey dropped the gun, which would be contrary to the officers’ testimony. Finally, Knox notes in his report that that some of the testimony supports the position that Ball-Bey dropped or threw the

³ Knox references in his deposition a large study on fired cartridge cases from the Force Science Institute, and he also notes that he has authored one paper on fired cartridge cases. Knox Dep., Doc. 225-3, 15:13-25, 16:1-14.

gun in the alley before turning east into the yard, including Vaughn's testimony at one point in his deposition that he observed Mansur Ball-Bey throw the pistol and continue south down the alley.

Based on the above, the Court finds that Knox's opinion was based on a combination of Knox's extensive experience in crime reconstruction, some references to published research, and Knox's reasonable analysis of the physical evidence and testimony in this case. Although Knox's opinion is not based entirely on scientific methodology that lends itself well to evaluation under the *Daubert* factors, it is sufficiently based on Knox's expert knowledge and the facts of this case to satisfy Rule 702's liberal admission standards.

Defendants' argument that Knox's opinion is merely speculative and is based on convoluted reasoning is without merit. The weaknesses Defendants assert in Knox's analysis—such as the fact that there is testimony that conflicts with Knox's opinion and the fact that it is possible that shell casing number 7 was fired from Vaughn's gun and not Chandler's—can be addressed through cross-examination and competing evidence.

Defendants also take issue with some of the factual assumptions underlying Knox's opinion. They argue that Knox relied in part on a transcript of a statement from Vaughn that contained a typographical error when compared to the audio recording of the transcript. Knox's deposition testimony indicates that knowing this would not have changed his conclusion. Knox Dep., Doc. 225-3, 72:13-25, 72:1-13. Regardless, to the extent that Knox relied on a fact that may be disproven, that is an appropriate matter for cross-examination and not a basis for excluding his testimony. *See, e.g., Finch*, 630 F.3d at 1062 (“As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination”) (internal quotation marks omitted).

Defendants also suggest that Knox is impermissibly assessing the credibility of various witnesses. As discussed above, credibility determinations are for the jury and are not a proper subject for expert opinion. However, after review of Knox's report and deposition, it does not appear to the Court that Knox is actually opining on the credibility of the witnesses.

Finally, the Court addresses Defendants' argument that Knox apparently relied on certain calculations and formulas in reaching his opinions, and that because he has not included those calculations and formulas in his report or produced them in his deposition, it is impossible to assess the reliability of those calculations and formulas. Defendants are referring to the formula Knox used in determining that for Ball-Bey to have thrown the gun from the location of the last shot to its resting place by the dumpster, he would have had to throw it at 40 miles per hour. Knox Dep., Doc. 225-3, at 52-61. After review of Knox's deposition transcript, the Court finds that Knox provided enough information for the Court to determine that this evidence is sufficiently reliable to satisfy Rule 702. When Knox was questioned about the basis for this calculation, he testified that he used a point mass kinematic equation that has been used for pedestrian throws for decades, and he explained what the equation is and what it is used for. The Court also finds that Knox provided sufficient information about this equation to allow Defendants to challenge it through cross-examination or to obtain competing information from their own experts.

In sum, the Court finds that Knox is qualified to offer the opinion that Ball-Bey was likely unarmed when he was shot; that this opinion was based on reliable principles and methods, reliably applied to the facts of this case; that this opinion is based on sufficient facts; and that this testimony will assist the jury in understanding the evidence and assessing the facts. Thus, the opinion satisfies the requirements of Rule 702. Defendants may challenge this opinion through cross-examination and competing evidence.

2. *Knox's opinion that Vaughn's testimony as to where he and Ball-Bey were located when Chandler fired is not supported by the physical evidence*

Defendants argue that because Chandler, not Vaughn, fired the fatal shot, any analysis of whether Vaughn was correct in his estimation of where he was or where Ball-Bey was is irrelevant. The Court disagrees. The issues in this case largely rest on the credibility of the testimony of Vaughn and Chandler regarding what occurred, and whether the officers' version of events or Plaintiff's version of events is more consistent with the physical evidence. Expert opinion evidence that will help the jury determine whether either officer's testimony is inconsistent with the physical evidence is highly relevant.

3. *Knox's opinion that Ball-Bey was located near the east end of the gangway when he was shot by Chandler*

Knox's final opinion is that Ball-Bey was located near the east end of the gangway, if not already in the front yard of 1233 Walton Avenue (where his body was found), when he was shot by Chandler. This opinion is based in part on the opinion of Dr. Gregory Nazar that the gunshot would have immediately rendered Ball-Bey incapable of running. The opinion is also based in part on Knox's assessment that Chandler would have had a clear line of sight from the location of shell casing number 7 down the gangway.

Defendants note that Plaintiff has now withdrawn his endorsement of Dr. Nazar as an expert witness in the case, and that the only competent evidence regarding the nature and effect of the gunshot wound is the autopsy report. That autopsy report had originally indicated that the gunshot transected Ball-Bey's spinal cord. However, after embalming, the report was amended to state that the bullet did *not* perforate the spinal cord. Defendants argue that in the absence of Dr. Nazar's testimony, there is no factual basis for Knox's finding that Ball-Bey could not have run down the gangway after being shot, and so it should be excluded. In his deposition, Knox

acknowledged that he did not intend to provide any opinion regarding Ball-Bey's spinal cord or any injuries to that spinal cord, and that it would be "up to the doctors" whether Ball-Bey could have continued running after the shot. Knox Dep., Doc. 225-3, at 103:1-25, 104:1-24.

The Court acknowledges that if there were no evidence that the gun had transected Ball-Bey's spine and he could not run, there would be no reasonable basis for Knox's opinion. However, a review of the parties' summary judgment filings suggests that even without Dr. Nazar's testimony, Plaintiff's position is that the first autopsy report more accurately reflects the condition of Ball-Bey's spine than does the amended autopsy report, which was performed only after embalming and only after the medical examiner had heard the officers' accounts of what had happened. Thus, at this time, it appears to the Court that there remains a factual basis for Knox's opinions, albeit one that Defendants will certainly challenge through cross-examination. Thus, the Court finds that the opinion is not will not exclude this opinion at this time.

IV. CONCLUSIONS

For all of the above reasons,

IT IS HEREBY ORDERED that Defendants' Motion to Exclude the Testimony of William M. Harmening (Doc. 222) is **GRANTED**.

IT IS FURTHER ORDERED that Defendants' Motion to Exclude the Testimony of Michael A. Knox (Doc. 224) is **DENIED**.



SHIRLEY PADMORE MENSAH
UNITED STATES MAGISTRATE JUDGE

Dated: August 10, 2023.